

**REMARKS**

Claims 1-26 have been cancelled. New claims 27-42 have been added. Claim 27-42 are currently pending.

Claims 27-42 correspond to the granted claims for U.S. Patent 7,357,427. More specifically, claim 27 corresponds to claim 1 in U.S. Patent 7,357,427, with the additional feature of “wherein the processing device is accessed remotely at a site separate from a rail car or a train consist”. Claim 42 corresponds to claim 16 in U.S. Patent 7,357,427, with the additional feature of “processing the topological information remotely at a site separate from a rail car or a train consist in the rail system”. Support for the additional features in claims 27 and 42 can be found throughout the application for example in paragraphs [0053], [0069], [0073] and in particular in paragraph [0091] and claims 10 and 14 as initially filed.

**Claim Rejections under 35 U.S.C. §102**

Claims 1-6, 9, 18-20, 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kumar (U.S. Patent 5,477,941).

Claims 1-6, 9, 18-20, 24-25 have been cancelled rendering the Examiner’s rejection to these claims moot.

New claims 27-42 are directed to a liquid composition system and method of applying a liquid composition in a rail system using the liquid composition system. The liquid composition system comprises a global position system (GPS), an applicator and a processing device that is accessed remotely at a site separate from a train consist. The processing device receives

topological information from the GPS and controls application of the liquid composition based on the topological information received.

Kumar discloses an on-board rail lubrication system that utilizes lubricant delivery nozzles integrated with sand pipe and nozzle for each rail. The lubricant quantities sprayed on the rail are controlled by a microprocessor which receives inputs relating to the application of brakes, emergency brake application, direction of travel of the train, input from a rain and snow sensor, information on trailing tons in the train, temperature of ambient atmosphere, train speed, and sharpness of the rail curve (column 5, lines 1-53 of Kumer).

There is no hint or suggestion in Kumer of a using a GPS system for acquiring topological information of a rail system in real time. Furthermore, there is no teaching in Kumer that the microprocessor is accessed remotely at a site separate from a train consist.

In addition, Applicants submit that claim 27 contains all the features of claim 1 of corresponding U.S. Patent 7,357,427 which has been deemed allowable in view of the cited art. Claim 27 is therefore novel in view of Kumer. The remaining claims are all dependent on claim 27 and are novel at least in view of their dependency.

#### **Claim Rejections under 35 U.S.C. §103(a)**

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumer.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumer as applied to claims 1, 18 and 19 above, and further in view of Nelson (U.S. Patent 5,236,063).

Claims 11-13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumer, and further in view of Kast (U.S. Patent 6,578,669).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumer and Kast as applied to claims 11 and 12 above, and further in view of Nelson.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumer and Kast.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumer.

Claims 22, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumer as applied to claims 18 and 25 above, and further in view of Clyne K. M. (WO 0118558 A1).

Each of the claim rejections under 35 U.S.C. 103(a) is based on Kumer taken either alone or in combination with other cited documents. As discussed above, there is no hint or suggestion in Kumer of a GPS system for acquiring topological information of a rail system in real time. Furthermore, there is no teaching in Kumer that the microprocessor is accessed remotely at a site separate from a train consist. Applicants submit that it would not have been obvious to a person of ordinary skill in the art at the time the invention was made to provide these features in the on-board rail lubrication system of Kumer. None of the other cited documents teach the use of a GPS system for acquiring topological information of a rail system in real time in combination with a processing device that is accessed remotely at a site separate from a train consist.

More particularly, Nelson is directed to a mobile unit positionable and driveable upon railroad tracks for application of a lubricant to the gauge flange of the track. There is no teaching within Nelson of a GPS system for acquiring topological information of a rail system in real

time. Furthermore, there is no teaching in Nelson of a processing device that is accessed remotely at a site separate from a train consist. The Examiner states that Nelson disclose Rail Lubricating Device comprising: the system information is obtained and processed remotely at a site separate from the rail car (column 4, lines 35-39). However, at column 4, lines 35-39 of Nelson it is disclosed:

**The lubricant flow line 16a includes a shut off line restrictor 45 for controlling the amount of lubricant delivered from the pump 16 through line 16a. This restrictor 45 may be remotely controlled from the vehicle cab and may be automatically speed responsive.**

Applicants submit that the restrictor of Nelson is not a processing device that receives topological information from the GPS and controls application of the liquid composition based on the topological information received. Furthermore, the restrictor is remotely controlled from the vehicle cab which is not a site separate from a train consist.

Kast teaches a lubrication system mounted on a railroad locomotive for applying a lubricant to a rail. There is no teaching within Kast of a GPS system for acquiring topological information of a rail system in real time. Instead Kast discloses a curve sensing device 114 which provides the controller 102 with information as to whether locomotive 10 is operating on straight or curved rails. Controller 102 is programmed to utilize information regarding curvature of the rail in the operation of lubrication system. Furthermore, there is no teaching in Kast that the microprocessor is accessed remotely at a site separate from a train consist.

Clyne teaches methods of determining movement and direction of a track-bound transportation apparatus using GPS satellites and a microprocessor. There is no teaching in Kast that the microprocessor is accessed remotely at a site separate from a train consist.

In addition, Applicants submit that the claim 27 contains all the features of claim 1 of corresponding U.S. Patent 7,357,427 which has been deemed allowable in view of the cited art. Claim 27 is therefore inventive in view of Kumer either taken alone or in combination with Nelson, Kast, or Clyne. The remaining claims are all dependent on claim 27 and are inventive at least in view of their dependency.

### CONCLUSION

In view of the foregoing amendments and accompanying remarks, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.

If the Examiner believes that there are issues remaining to be resolved in this application, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite and complete prosecution of this case.

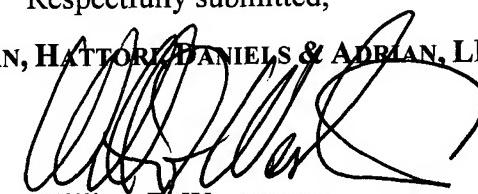
Application No.: 10/581,268  
Art Unit: 3657

Amendment under 37 C.F.R. §1.111  
Attorney Docket No.: 042530A

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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